

- 15 -

CLAIMS

1. A retractable leg assembly for an amphibious vehicle, comprising a leg adapted to be pivotally mountable to the vehicle, and a linear actuator also adapted to be pivotally mountable to the vehicle and to be operatively connected to the leg, wherein the
5 arrangement of the leg and the actuator once mounted to the vehicle is such that the actuator is adapted to move the leg through an arc of travel from a retracted position to an extended position, and during the travel the actuator moves about its pivotal mount in a manner to ensure that the force exerted on the leg by the actuator in a direction that is tangential to the arc of travel of the leg remains substantially optimal
10 during a portion of the arc of travel.
2. A retractable leg assembly as claimed in claim 1, wherein the actuator is movable about its pivotal mount in a manner ensuring that the force exerted on the leg by the actuator in a direction that is tangential to the arc of travel of the leg remains substantially optimal during the greater portion of the arc of travel.
- 15 3. A retractable leg assembly as claimed in any previous claim, wherein the leg and the linear actuator are both pivotally mounted onto an adapter plate or fixture which is mountable to an amphibious vehicle.
4. A retractable leg assembly as claimed in any previous claim, wherein the arc of travel is sufficient to allow the greater part of the leg to be raised above the water line of the
20 vehicle.
5. A retractable leg assembly as claimed in any previous claim, wherein the retractable leg assembly includes a mounting means for at least one ground engagement means.
6. A retractable leg assembly as claimed in any preceding claim, wherein the retractable leg assembly includes a steering actuator means which is adapted to control the
25 orientation of the ground engagement means relative to the retractable leg assembly.
7. A retractable leg assembly as claimed in any preceding claim, wherein the ground engagement means is a wheel.

- 16 -

8. A retractable leg assembly as claimed in claim 7, wherein the wheel includes a balloon type tire.
9. A retractable leg assembly as claimed in claim 8, wherein the leg assembly is adapted to position the wheel, when in the retracted position, in such a manner that the wheel
5 can be used as a bumper or fender.
10. An amphibious vehicle incorporating at least one retractable leg assembly substantially as claimed in any preceding claim.
11. An amphibious vehicle as claimed in claim 10, wherein the path of travel of the leg
10 from the retracted position to the extended position is external from the substantially water-tight structure of the amphibious vehicle.